

CLAIMS

Please amend the claims as shown in the following listing of claims. This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 – 26. (Cancelled)

27. (Currently Amended) A method for achieving full occlusion of a vascular vessel of a patient, comprising delivering to the vessel an embolization device comprising a harvested remodelable submucosal tissue, the embolization device, upon delivery to the vessel, maintaining remodelable submucosal tissue in the vessel for a period of time sufficient for said remodelable submucosal tissue ~~effective~~ to promote cellular invasion and ingrowth into the embolization device and to become remodeled with tissue of the patient so that an all-natural, remodeled tissue blockage is generated in the vessel and remains in the vessel fully occluding the vessel.

28. (Withdrawn) The method of claim 27, wherein the embolization devices comprises a coil formed with said remodelable submucosal tissue.

29. (Original) The method of claim 27, wherein the submucosa is porcine submucosa.

30. (Withdrawn) The method of claim 27, wherein the embolization device comprises at least one sheet of submucosa.

31. (Previously Presented) The method of claim 27, wherein the device comprises a particulate material comprising submucosa.

32. (Currently Amended) A method for achieving full occlusion of a vascular vessel of a patient, comprising delivering to the vessel an embolization device comprising a harvested remodelable collagenous extracellular matrix biomaterial, the embolization device, upon delivery to the vessel, maintaining remodelable collagenous extracellular matrix biomaterial in the vessel for a period of time sufficient for ~~wherein~~ the harvested remodelable collagenous extracellular matrix biomaterial ~~is effective~~ to promote a healing response in an area of the vascular vessel occluded with the harvested remodelable collagenous extracellular matrix biomaterial and to become remodeled with tissue of the patient so that an all-natural, remodeled tissue blockage is generated in the vessel and remains in the vessel fully occluding the vessel.

33. (Previously Presented) The method of claim 32, wherein the biomaterial comprises submucosa.

34. (Withdrawn) The method of claim 32, wherein the device comprises a coil formed with said remodelable collagenous extracellular matrix biomaterial.

35. (Previously Presented) The method of claim 32, wherein the biomaterial comprises porcine submucosa.

36. (Withdrawn) The method of claim 32, wherein the device comprises at least one sheet of the remodelable collagenous extracellular matrix biomaterial.

37. (Previously Presented) The method of claim 32, wherein a pharmacologic agent is disposed on the biomaterial.

Claims 38 – 39. (Cancelled)

40. (Previously Presented) The method of claim 32, wherein the biomaterial comprises a material selected from submucosa, pericardium, basement membrane, and amniotic membrane.

41. (Previously Presented) The method of claim 32, wherein the biomaterial also comprises a radiopaque marker.

42. (Withdrawn) The method of claim 32, wherein the biomaterial is injectable.

43. (Withdrawn) The method of claim 32, wherein the biomaterial is in comminuted form.

44. (Withdrawn) The method of claim 33, wherein the biomaterial is in comminuted form.

Claims 45 – 46. (Cancelled)

47. (Currently Amended) A method for occluding a blood vessel in a patient, comprising:

providing an embolization device free from any metallic component, the embolization device comprising a thrombogenic collagenous biomaterial harvested from animal tissue and containing at least one biotropic agent selected from a proteoglycan, a growth factor, a glycoprotein, and a glycosaminoglycan;

delivering the embolization device to a blood vessel of the patient in such a manner as to fill the blood vessel, to cause formation of an embolus in the blood vessel, and to cause a full occlusion of the blood vessel; and

wherein the thrombogenic collagenous biomaterial is biodegradable and remains in the blood vessel for a sufficient period of time following delivery to promote ~~promotes~~ a healing response in the patient so as to result in the generation of an all natural blockage fully occluding ~~the of the~~ blood vessel in the patient.

48. (Previously Presented) The method of claim 47, wherein the thrombogenic collagenous biomaterial comprises submucosa, pericardium, basement membrane, or amniotic membrane.

49. (Previously Presented) The method of claim 48, wherein the thrombogenic collagenous biomaterial comprises amniotic membrane.

50. (Previously Presented) The method of claim 48, wherein the thrombogenic collagenous biomaterial comprises submucosa.

51. (Withdrawn – Currently Amended) A method for occluding a blood vessel in a patient, comprising:

advancing a delivery catheter into the blood vessel of the patient;

delivering an embolization device from the delivery catheter and into the blood vessel, the embolization device comprising a thrombogenic collagenous biomaterial sheet harvested from animal tissue or a thrombogenic component prepared from the thrombogenic collagenous biomaterial sheet, wherein the thrombogenic collagenous biomaterial sheet contains at least one biotrophic agent selected from a proteoglycan, a growth factor, a glycoprotein, and a glycosaminoglycan, and further wherein said delivering is conducted so as to fill the blood vessel, to promote the formation of thrombus in the blood vessel, and to cause a full occlusion of the blood vessel; and

wherein the thrombogenic collagenous biomaterial sheet or the thrombogenic component prepared therefrom is biodegradable and remains in the blood vessel for a sufficient period of time following delivery to promote ~~promotes~~ a healing response in the patient so as to result in tissue ingrowth into an area of the blood vessel into which the embolization device is delivered with the generation of an all natural blockage in the blood vessel fully occluding the vessel.

Claims 52 – 53. (Cancelled)

54. (Withdrawn) The method of claim 51, wherein the embolization device comprises a thrombogenic component prepared from the thrombogenic collagenous biomaterial sheet,

wherein the component is a comminuted component, a branched component, a helical component, a spherical component, a cubic component, or a cylindrical component.

55. (Currently Amended) A method for fully occluding a blood vessel or filling an aneurysm in a patient, comprising:

advancing a delivery catheter into the blood vessel or the aneurysm;

delivering an embolization device from the delivery catheter and into the blood vessel or the aneurysm, the embolization device comprising a thrombogenic collagenous biomaterial harvested from animal tissue and containing at least one biotrophic agent selected from a proteoglycan, a growth factor, a glycoprotein, and a glycosaminoglycan, and further wherein said delivering is conducted so as to cause formation of an embolus and to fill and fully occlude flow in the blood vessel or to fill the aneurysm; and

wherein the thrombogenic collagenous biomaterial is biodegradable and remains in the blood vessel or the aneurysm for a sufficient period of time following delivery to promote ~~promotes~~ a healing response in the patient so as to result in tissue ingrowth into the blood vessel or the aneurysm so that an all-natural blockage is generated in the blood vessel or the aneurysm ~~and~~ remains in the blood vessel or the aneurysm.

56. (Cancelled)

57. (Previously Presented) The method of claim 55, which is for filling an aneurysm.

58. (Previously Presented) The method of claim 55, which is for fully occluding a blood vessel.

Claims 59 – 60. (Cancelled)

61. (Currently Amended) A method for filling an aneurysm in a patient, comprising:
advancing a delivery catheter into the aneurysm of the patient;
delivering an embolization device from the delivery catheter and into the aneurysm, the embolization device comprising a thrombogenic collagenous biomaterial harvested from animal tissue and containing at least one biotrophic agent selected from a proteoglycan, a growth factor, a glycoprotein, and a glycosaminoglycan, and further wherein said delivering is conducted so as to fill the aneurysm; and

wherein the thrombogenic collagenous biomaterial is biodegradable and remains in the aneurysm for a sufficient period of time following delivery to promote ~~promotes~~ a healing response in the patient so as to result in tissue growth into the aneurysm so that an all-natural blockage is generated in the aneurysm and remains in the aneurysm.

Claims 62 – 63. (Cancelled)

64. (Withdrawn) The method of claim 61, wherein the embolization device comprises a thrombogenic component prepared from a sheet of the thrombogenic collagenous biomaterial, wherein the component is a comminuted component, a branched component, a helical component, a spherical component, a cubic component, or a cylindrical component.

65. (Withdrawn) The method of claim 64, wherein the component is a comminuted component or a helical component.

66. (Withdrawn) The method of claim 65, wherein the thrombogenic collagenous biomaterial also comprises a radiopaque substance.

67. (Cancelled)